



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

H.A

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,653	07/07/2005	Klemens Breitfuss	AT03 0002 US	3870
65913	7590	01/15/2008		
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			EXAMINER JIANG, YONG HANG	
			ART UNIT 2612	PAPER NUMBER
			NOTIFICATION DATE 01/15/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary

Application No.

10/541,653

Applicant(s)

BREITFUSS ET AL.

Examiner

Yong Hang Jiang

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicants' amendment filed on 11/13/2007 has been entered. Claims 1 and 3-16 are amended. Claim 2 is cancelled. Claims 1 and 3-16 are still pending.

Drawings

2. The drawings are objected to because rectangular boxes shown in the drawings of Figure 1 should be provided with descriptive text labels. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

In addition, according to MPEP 608.02(e), the examiner determines completeness and consistency of drawings. If the drawings are not satisfactory, the drawings will not be entered.

Specification

3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

4. Applicants are reminded here again each section of the specification described above must be clearly separated by title. The specification will not be entered unless the specification has complied with the arrangement.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3, and 6-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Gallagher (US 6,963,270).

Regarding claim 1, Gallagher discloses a method for activating a desired communication mode of an ID communication partner device (RFID tag) from a group of possible communication modes (tag-talk-first mode or reader-talk-first mode), which group comprises at least a first mode (tag-talk-first mode) and a second mode (reader-talk-first mode),

wherein the ID communication partner device and at least one other ID communication partner device (RFID tag reader) are brought into a communication connection and

wherein a carrier signal is output by the at least one other ID communication partner device (via an inherent RFID tag reader transmitting signal containing a special

command to explicitly set the Talk first bit to a "1" or "0"), which carrier signal is received by the ID communication partner device, and

wherein the carrier signal is repeatedly designated by at least one mode activation signal (via the special command) by means of the at least one other ID communication partner device, and

wherein the presence of the mode activation signal is recognized by the ID communication partner device, giving a recognition result signal (inherent result signal allowing the tags to change the Talk first bit to a "1" or "0"), and

wherein, as a function of the recognition result signal, the desired communication mode of the ID communication partner device is activated, the desired communication mode being either a Reader Talks First (RTF) mode or a Tag Talks First (TTF) mode, the ID communication partner device being configured to operate in the RTF mode and the TTF mode. (See the Abstract; Col. 3, lines 6-14; Col. 7, lines 42-53; and Col. 8, lines 11-20)

Regarding claim 3, Gallagher inherently discloses the at least one mode activation signal is formed by a sinusoidal signal (signals transmitted are sinusoidal) and the carrier signal is inherently designated by a modulation (in order to properly transmit data) using the at least one sinusoidal signal.

Regarding claim 6, Gallagher discloses the carrier signal is designated only at predefined time intervals (via the appropriate time in the life cycle of the transponder). (See Col. 8, lines 40-44; and lines 16-20)

Regarding claim 7, Gallagher inherently discloses recognition of a communication status is carried out (in order to send the special command) and wherein the repeated designation of the carrier signal by the mode activation signal is carried out as a function of the communication status.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher as applied to claim 3 above, and further in view of Kline (US 2002/0024423).

Regarding claim 4, Gallagher discloses the structural elements of the claimed invention but fails to disclose the mode activation signal is recognized by correlation.

Kline teaches a correlator connected to a receiver to receive a conditioned output signal for pulse correlation to recover an estimation signal that corresponds to symbols of a data to be recovered. (See Figure 5 and Paragraph 24)

From the teachings of Kline, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Gallagher to include the mode activation signal is recognized by correlation as taught by Kline in order to recover data in the mode activation signal.

Regarding claim 5, Gallagher discloses the structural elements of the claimed invention but fails to disclose the mode activation signal is recognized by filtering out the sinusoidal signal.

Kline teaches using a high pass filter to filter out an alternating voltage and provide a filtered output signal, as well as a matched filter connected to condition the filtered output signal to filter out unwanted signals and provide a conditioned output signal. (See Figure 5 and Paragraph 24)

From the teachings of Kline, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Gallagher to include the mode activation signal is recognized by filtering out the sinusoidal signal as taught by Kline in order to a conditioned output signal for processing.

10. Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maclellan (US 5,929,779) and further in view of Gallagher (US 6,963,270).

Regarding claim 8, Maclellan discloses an integrated circuit (See Figure 2) for an ID communication partner device designed as a communication station (via interrogator 103), which integrated circuit comprises the following means:

output means for outputting a carrier signal (via transmitter antenna 204), which carrier signal can be received by another ID communication partner device (tag 105),

generation means (radio signal source 201) for generating at least one mode activation signal (via a sync signal, See Col. 3, lines 63-67), and

designation means (via modulator 202) for repeatedly designating the carrier signal with the at least one mode activation signal. (See Col. 3, lines 57-67; Col. 4, lines 1-10; and figure 2)

But Maclellan fails to disclose the at least one mode activation signal being configured to be recognized by the another ID communication partner device to initiate a Reader Talks First (RTF) mode or a Tag Talks First (TTF) mode, the another ID communication partner device being configured to operate in the RTF mode and the TTF mode.

Gallagher teaches placing transponders such as RFID tags in either a tag-talk-first mode or a reader-talk-first mode. Immediate communication of critical data may occur from transponders using a tag-talk-first mode, wherein the transponder sends its data immediately upon power up in systems such as high speed conveyor systems that require a fast response from the transponders. In the reader-talk-first mode, the tags respond only after being fully powered on and receiving a command from the reader. (See the Abstract; Col. 3, lines 6-14; Col. 7, lines 42-53; and Col. 8, lines 11-20)

From the teachings of Gallagher, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the integrated circuit of Maclellan to include the at least one mode activation signal being configured to be recognized by the another ID communication partner device to initiate a Reader Talks First (RTF) mode or a Tag Talks First (TTF) mode, the another ID communication partner device being configured to operate in the RTF mode and the TTF mode as taught by Gallagher in order to allow a user to select the best operating mode for the another ID communication partner device according to the system the another ID communication partner device is in.

Regarding claim 9, Maclellan discloses the generation means (radio signal source 201) are designed to form the at least one mode activation signal using at least one sinusoidal signal (electromagnetic radiation are sinusoidal inherently), and wherein the designation means (modulator 202) are designed to designate the carrier signal with the at least one sinusoidal signal using modulation (via amplitude modulation) (See col. 4, lines 1-10).

Regarding claim 10, Maclellan discloses the designation means (modulator 202) are designed to designate the carrier signal only at predefined time intervals (via the time interval when the interrogator is communicating with the tag, See Col. 4, lines 1-10).

Regarding claim 11, Maclellan discloses the communication status recognition means (via processor 200) are also provided, by means of which a communication status of the ID communication partner device can be recognized (via sync signal

indicating the transfer mode), and wherein the designation means (modulator 202) are designed to repeatedly designate the carrier signal (via amplitude modulation) by the mode activation signal (via sync signal sent from interrogator 103 to tag 105) as a function of the communication status (See Col. 3, lines 57-67; Col. 4, lines 1-10; and figure 2).

Regarding claim 12, Maclellan discloses an ID communication partner device which is designed as a communication station (via interrogator 103) and which is provided with an integrated circuit (see figure 2) as claimed in claim 8.

11. Claims 13, 15 and 16 are rejected under 35 U.S.C. 103(a) as being anticipated by Iijima (EP 0513507 B2) and further in view of Gallagher (US 6,963,270).

Regarding claim 13, Iijima discloses an integrated circuit (see figure 1) for an ID communication partner device (IC card 1) designed as a data carrier, which integrated circuit comprises the following means:

activation means (via CPU 4) for activating a desired communication mode (protocol A or B) of the ID communication partner device from a group of possible communication modes,

storage means (via mask ROM 2) for storing mode control data of the group of possible communication modes, which group comprises at least a first mode and a second mode,

reception means (via contact portion 5) for receiving a carrier signal (via a signal containing commands) that is output by another ID communication partner device

(external device 7) and is designated with a mode activation signal (via protocol selecting signal), and

recognition means (via CPU 4) for recognizing the presence of the at least one mode activation signal (protocol selecting signal from external device 7, see paragraph 27), by means of which recognition means a recognition result signal can be generated (via "answer to reset" information generated by IC card 1, See paragraph 28), as a function of which recognition result signal the activation of the desired communication mode of the ID communication partner device can be activated by the activation means. (See Paragraphs 14-28 and figures 1-3).

But Iijima fails to disclose the desired communication mode of the ID communication partner device being either a Reader Talks first (RTF) mode or a Tag Talks First (TTF) mode, the activation means being configured to switch between the RTF mode and the TTF mode.

Gallagher teaches placing transponders such as RFID tags in either a tag-talk-first mode or a reader-talk-first mode. Immediate communication of critical data may occur from transponders using a tag-talk-first mode, wherein the transponder sends its data immediately upon power up in systems such as high speed conveyor systems that require a fast response from the transponders. In the reader-talk-first mode, the tags respond only after being fully powered on and receiving a command from the reader. (See the Abstract; Col. 3, lines 6-14; Col. 7, lines 42-53; and Col. 8, lines 11-20)

From the teachings of Gallagher, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the desired communication

mode of the ID communication partner device being either a Reader Talks first (RTF) mode or a Tag Talks First (TTF) mode, the activation means being configured to switch between the RTF mode and the TTF mode as taught by Gallagher to allow a user to select the best operating mode for the ID communication partner device according to the system the ID communication partner device is in.

Regarding claim 15, Iijima discloses the recognition means (CPU 4) are designed to recognize the presence of the at least one mode activation signal by filtering out this signal (via CPU 4 on IC card 1 recognizing protocol selecting signal from external device 7).

Regarding claim 16, Iijima discloses an ID communication partner device (via IC card 1), which is designed as a data carrier (via IC card 1 containing data), and which is provided with an integrated circuit (See figure 1) as claimed in claim 13. (See Paragraphs 14-28 and figures 1-3).

12. Claim 14 is rejected under 35 U.S.C. 103(a) as being anticipated by Iijima and in view of Gallagher as applied to claim 13 above, and further in view of Kline (US 2002/0024423).

Regarding claim 14, the combination of Iijima and Gallagher disclose the structural elements of the claimed invention wherein Iijima discloses the recognition means (CPU 4) are designed to carry out the recognition of the presence of the at least one mode activation signal by a demodulation (via communication I/O circuit 6 demodulating signal received from external device 7 and sending the demodulated

signal to CPU 4 for processing, See paragraphs 27-29 and figure 1) but fail to disclose the demodulation is done using correlation.

Kline teaches a correlator connected to a receiver to receive a conditioned output signal for pulse correlation to recover an estimation signal that corresponds to symbols of a data to be recovered. (See Figure 5 and Paragraph 24)

From the teachings of Kline, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Iijima and Gallagher to include using correlation to demodulate the at least one mode activation signal as taught by Kline in order to recover data in the mode activation signal.

Response to Arguments

13. Applicant's arguments with respect to claims 1 and 3-16 have been considered but are moot in view of the new ground(s) of rejection.

Applicants are reminded again in this Office Action that the specification must follow the guidelines as set forth in 37 CFR 1.77(b).

Objection to the drawings have been withdrawn.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Hang Jiang whose telephone number is 571-270-3024. The examiner can normally be reached on M-F 7:30 am to 5:30 pm alternate fridays off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian A. Zimmerman can be reached on 571-272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/541,653
Art Unit: 2612

Page 15

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YHJ


BRIAN ZIMMERMAN
SUPERVISORY PATENT EXAMINER